





### ISSUE #45 (2 DISKS)

**NECROMANCER'S REVENGE**  
This sequel to LIAR OF THE NECROMANCER continues the adventure as the necromancer returns to menace the people of the kingdom.

**Q & D LESSER TEXT**  
Read the ALL ABOUT APPLE's article to learn how to print text on the hi-res screen.

**POKER SQUARES**  
How good a poker player are you? Find out with this card game that can be played competitively or solitaire-style.

**COMSPORT**  
All you ever want to know about sorting — almost. Learn about eight different sorting routines.

**ALFREDO'S DIGESTIVE DILEMMA**  
Alfredo is in trouble again! How does he get into these messes?!

**GOBBLE**  
A word game for the whole family. How many words can you make in the grid before time runs out?

**JUPITER**  
This plot of the moons of Jupiter is not just educational — the patterns on the hi-res screen are interesting by themselves.

**MEGABUCKS**  
Picking lottery numbers is only part of this program. You can learn a lot about random numbers by reading the text and listing the program.

**DOS 'N' STUFF — PART 14**  
Gary Bond explains how DOS deletes a file and how you can undelete it.

**BITS 'N' BYTES — PART 4**  
Learn how to load values into the registers. You'll also write a short assembly language program.



### ISSUE #46 (2 DISKS)

**MR. MACHINE**  
Here's the football program you've been waiting for! Predict the winners!

**MOON BUGGY**  
We're sending you to the moon to rescue some stranded scientists. Don't fail us!

**TRIPLE TRIVIA**  
Convert your trivia questions to a new game.

**GEOMETRY FORMULAS**  
Twenty-three formulas to find area, volume, etc.

**PALINDROME SQUARES**  
A cute novelty.

**DIAMOND DRAW**  
Create hi-res pictures! This makes drawing easy.

**ALL ABOUT APPLES**  
Find out what causes errors and how to avoid them in your programs.

**DOS 'N' STUFF — PART 15**  
What is the VTOC? Read this installment to find out.

**BITS 'N' BYTES — PART 5**  
Learn seven new commands and you'll be ready to write a machine language program.

**ALFREDO'S CRUSHING CURIOSITY**  
Alfredo's in trouble again! This time, there's switches and water and...

**HYPE ADVENTURE**  
You'll find mountains and pirates and lots of fun in this one!

**PRINT SHOP GRAPHICS**  
14 more PRINT SHOP graphic designs created by Softpals just for you!

**CRYPTO SOLVER**  
Cryptogram fans gather 'round! You need this program! It's fun!

**Also—**  
**MATHEMATICAL REFLECTIONS**  
**CODE CACHE**



### ISSUE #47 (2 DISKS)

**MOVIE MOGUL**  
Here's your chance to make millions in the movies. Just choose the right script and actors!

**ARMS RACE**  
How well will you do in planning arms race expenditures?

**RISKY ROLLER**  
A dice game where strategy makes the difference between winning and losing.

**TEST PATTERNS**  
There are logical rules to follow. All you have to do is find them!

**MULTIPLICATION HELPER**  
Improve your multiplication skills with this program.

**FORMULA & MOLECULAR MASSES**  
The perfect program to help with your next chemistry assignment.

**ALL ABOUT APPLES**  
Find out more about trapping errors.

**MR. COPY**  
Read ALL ABOUT APPLES to learn about our new copy program.

**ALFREDO'S WHOPPING WATTAGE**  
Alfredo is always in trouble. See what happens to him this time.

**ANCIENT GREEK HISTORY**  
A greek history lesson the easy way — with the hi-res screen to help.

**ALPHABET GAME**  
This is for the younger set. And for mockingboard owners.

**PRINT SHOP GRAPHICS**  
More graphics designs sent in by subscribers.

**Also—**  
**MATHEMATICAL REFLECTIONS**  
**DOS 'N' STUFF PART 16**  
**ELECTIONS**



### ISSUE #48 (2 DISKS)

**THE PHRASE THAT PAYS**  
More fun, but less lucrative, than Wheel of Fortune. Who's the word wizard at your house?

**MATTERS OF STATE**  
For geographers, not diplomats. For fun, or education.

**THE ENVELOPE PLEASE!**  
Make your own envelopes that fit Print Shop cards!

**PRINT SHOP CONTEST WINNERS**  
Scads of neat graphics by our subscribers. These are the best of the show.

**AMERICA'S PAST TIME**  
Not baseball, but history. Dates can be more fun than figs.

**WORLD SERIES TRIVIA**  
Here's baseball. Do you remember Bill Dinnéen?

**ALFREDO'S FIERY FIASCO**  
Mike Nuzzo's cartoon character goes underground again. The result is a blast!

**CRIBBAGE SQUARES**  
Cribbage partner not available? You can still have a hot game!

**BUBBLE SORT DEMO**  
Is your Apple out of sorts? This could help.

**THE COMET COMETH**  
A preview of our series on Halley's extraterrestrial itinerary.

**ASCII X-RAY MACHINE**  
Scan Apple's memory in either hex or ASCII.

**MACHINE LANGUAGE SPOKEN SOFTLY**  
A new tutorial on writing machine language programs from Stephen Lepisto.

**Also—**  
**GRAPPLER + DUMPER**  
**THE PRICE IS RIGHT!**  
**OKI SETUP**  
**ALL ABOUT APPLES**



### ISSUE #49 (2 DISKS)

**CHRISTMAS JUKEBOX**  
Sweet seasonal tunes with appropriate pictures.

**MISSING LINK**  
Another great solitaire game from the master, Paul Zelman.

**ALFREDO'S HULKING HUBRIS**  
The fantastic adventures of poor, downtrodden Alfredo continue. This time he overwens.

**ALL ABOUT APPLES**  
Q & D Missing String Functions adds INSTSTRING, INPUT ANYTHING, and PRINT USING to BASIC.

**PRINT SHOP IMAGES**  
Twenty-two fresh images for Print Shop lovers.

**MACHINE LANGUAGE SPOKEN SOFTLY, Pt.II**  
Continuing last month's exploration of HEX and opcodes.

**BOWMEN**  
Try to defeat your arch enemies, the other bowmen.

**BIG ERNIE**  
If you answer right, Ernie will make it across the canyon.

**HALLEY HORIZONS**  
A graphic illustration of Halley's progress through the heavens in '86.

**RUNNER'S LOG**  
Remember your year for that six mile run on Oct.4? No? Runner's log does.

**REM REMOVER PLUS**  
BASIC REM's are great documentation but they slow down your program and make it larger. Now you can easily strip them all out.

**THE PRICE IS RIGHTER**  
We replace last month's archaic markup algorithm with the modern one.

**MATHEMATICAL REFLECTIONS**  
Pi and Scandinavian insurance claims.

**COMPUTER EYES**  
An in depth look at a new image digitizer.



### ISSUE #50 (2 DISKS)

**WORMSHOT**  
An arcade game: "Blast the vermin from the sky before it devours your meteor shield!"

**DUNGEON OF THE DRAGON**  
A "tongue in cheek" text adventure.

**OBSERVATION**  
A hi-res version of a game like TV's Concentration.(tm)

**TOUGH GUY'S I.Q. TEST**  
Are you a genius? Find out with this adaptation of a MENSA test.

**NETWORK**  
A two-player hi-res board game of strategy.

**SECRET STUFF DECODER**  
A tool which helps create and solve cryptograms.

**HI-RES IMAGE MOVER**  
Reverses graphics images left-to-right so iron-on images aren't backwards.

**PRINT SHOP IMAGE FLIPPER**  
Reverses Print Shop images left-to-right.

**MATHEMATICAL REFLECTIONS**  
A statistical test to see if APPLE'S random number generator is really random, plus a graphical view of the Central Limit Theorem at work.

**FRENCH VOCABULARY**  
Tests your ability to translate French-to-English or English-to-French.

**HALLEY'S SOLAR SOJOURN**  
Take a look at the comet's travels in the past 76 years.

**TOMATO THERAPY**  
Several options are available to fill your screen with a kaliedoscope of graphics.

**MOEBIUS DEMO**  
An exciting overview and running demo of Greg Malone's newest role-playing adventures Moebius: The Orb of Celestial Harmony.

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